

# *STATE ROUTE 89 TRANSPORTATION CONCEPT REPORT*



*CALTRANS DISTRICT 9*

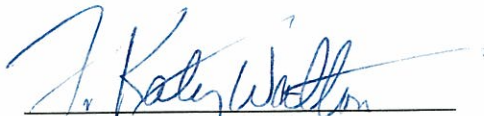
*Office of System Planning  
November 2001*

STATE ROUTE 89  
TRANSPORTATION CONCEPT REPORT

PREPARED  
BY  
CALTRANS  
DISTRICT 9  
SYSTEM PLANNING BRANCH

November 2001

APPROVAL RECOMMENDED:

  
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11/28/01  
DATE

  
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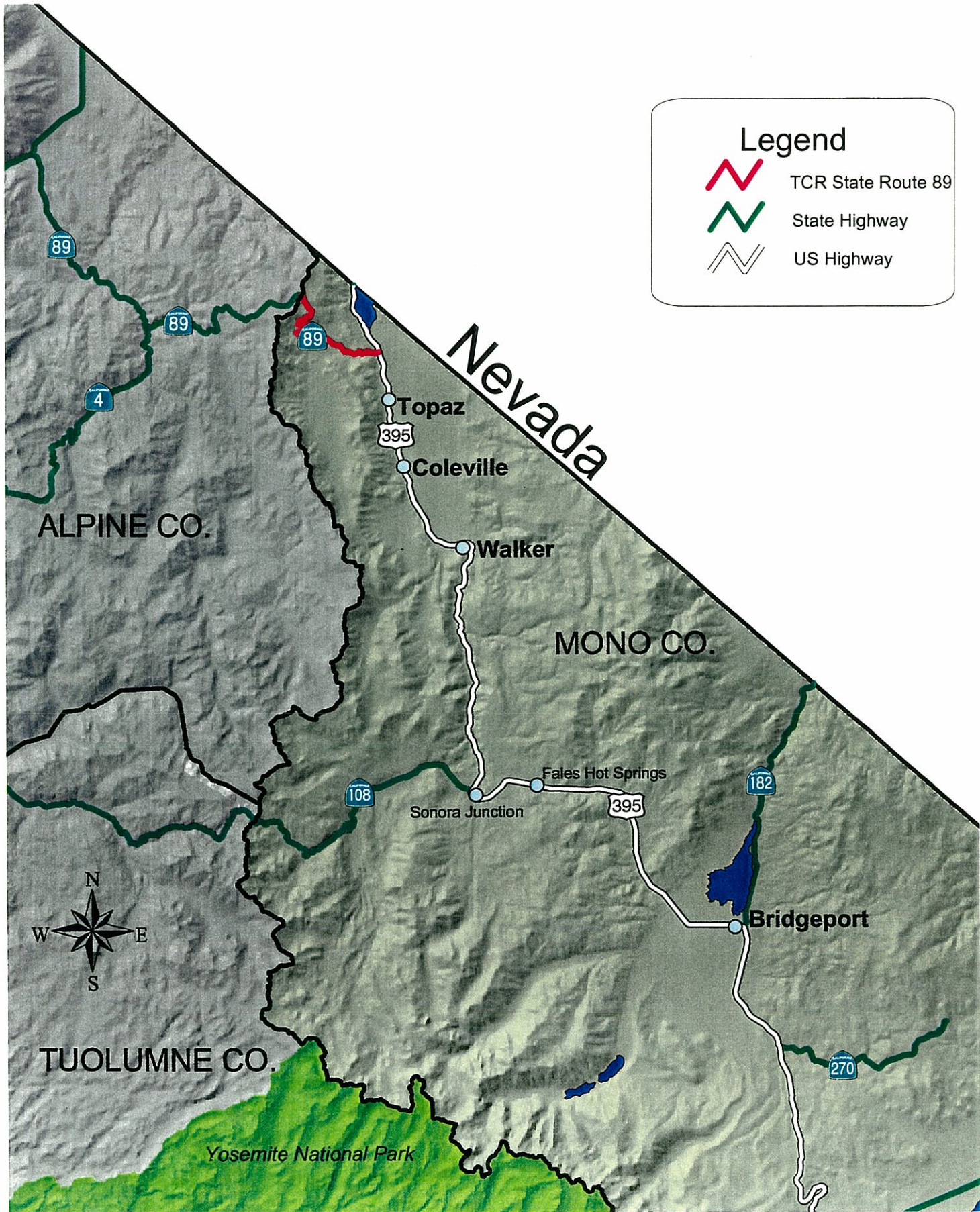
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# State Route 89 Corridor Map - Mono County





# EXECUTIVE SUMMARY

## INTRODUCTION

The Transportation Concept Report (TCR) is a long range planning document that describes the current characteristics of the transportation corridor and establishes a twenty-year planning concept. The TCR defines the California Department of Transportation (Caltrans) goals for the development of the transportation corridor in terms of Level of Service (LOS) and type of facilities, and broadly identifies the improvements needed to reach those goals.

This TCR has been prepared by the District 9 System Planning Branch in cooperation with local and regional agencies, as well as adjacent Counties and Caltrans Districts. All information in this TCR is subject to revision as conditions change and new information is obtained. Consequently, the nature and the size of identified improvements may change as they move through the project development stages. Final determinations are made at the time of project planning and design.

## FORMAT

The format for the TCR has changed from its previous fully narrative report format to a more concise database-oriented format. This new format was designed to streamline information and to better provide a usable, easily updateable platform for computerized access.

## CONCEPT RATIONALE

State Route (SR) 89 begins at US Highway 395 (Slinkard Junction) north of Coleville, in Mono County. The route extends north through District 9 (Mono County), District 10 (Alpine County), District 3 (El Dorado, Placer, Nevada & Sierra Counties), and District 2 (Plumas, Tehama, Shasta, and Siskiyou Counties) where it terminates at the junction of Interstate 5 just south of Mount Shasta.

This TCR covers SR 89 within the boundary of District 9, (US 395 to the Alpine County line) a distance of 7.6 miles (12.2 kilometers). Prior to its construction, SR 89 in Mono County was a Forest Service road that terminated half a mile into Slinkard Canyon. The rest of the route consisted of rugged, alpine terrain that could only be accessed by either foot or horseback. In 1909 the California Highway Act was established and contained a provision that required County Seats to be linked through intrastate highway routes. At

this time, Alpine County's seat in Markleeville, and Mono County's seat of Bridgeport, were linked through presently signed routes U.S. 395 and SR 88, via Minden, Nevada.

In 1947 Mono County contracted an engineer to begin surveying a possible route from Heenan Lake to the existing Forest Service road in Slinkard Canyon. Subsequent surveys followed, and the route began taking map form in 1948. In 1949, Contractors under the supervision of the Alpine County Road Department began building the western portion of the road, while the California Division of Highways, District 9 Office, supervised the construction of the eastern side. Between the two segments was a 3.5-mile (5.6-kilometer) stretch at the summit, which was the most difficult and final part of connecting the two newly graded routes. In 1952 the California Highway Commission adopted the route as a state highway and prepared funding for the final grading of 3.5 miles (5.6 kilometers) at the summit. A drainage network was installed and the entire 17.5 miles (28.2 kilometers) of the route was resurfaced. On September 12, 1954 the route was officially opened during a ribbon cutting ceremony as a part of State Highway 89. In 1959 the route was listed on the California Freeway and Expressway System.

SR 89 is functionally classified as a 2-lane Minor Arterial, which provides access west from U.S. 395 to the Sierra Nevada Mountains. The elevation varies from 5,000 feet (1,524 meters) at the junction of U.S. 395 to over 8,300 feet (2,530 meters) at Monitor Pass. This segment of SR 89 from PM 3.2 to the Alpine County Line is officially designated as a California Scenic Highway due to the spectacular scenery along the route, which includes Glacial Valley vistas, towering peaks of the Sierra Nevada Mountain Range, and views of the Great Basin Valley's below.

During the summer months, the road primarily serves recreational, ranching, and forestry traffic. Due to severe winter weather conditions, combined with steep grades and sharp curves, the portion of SR 89 between U.S. 395 and SR 4 is normally closed between late November and early April. There is some interest from Mono County and residents in communities adjacent to Monitor Pass to keep the pass open as long as possible. This is to increase access from the west, which helps support the economy for local communities. However, weather conditions and geometrics make it difficult and costly to keep the highway open year round. The costs versus benefits of this proposal should be addressed in a separate study and is not within the scope of this TCR. With reference to this issue, The Trans Sierra Advisory Group is presently examining methods and will make recommendations for improving access over the Sierra Nevada with a particular focus on minimizing highway closures and improving roadways. If a closure is required, the alternative is to utilize a different route, such as SR 88 or U.S. 50.

SR 89 provides access to camping, fishing, horseback riding, hunting, and biking, which are just a few of the of the important tourism-related activities of the area. During the periods when SR 89 is open, tourists from California's Central Valley use the route to access the Eastern Sierra, which helps drive the regions economic base.

The primary issues of concern for SR 89 are snow removal, pavement deterioration, and a lack of usable shoulders. The winding horizontal alignment on SR 89 causes heavy



vehicles to ride on or over the edge of the pavement. This, combined with drainage erosion, causes the edge of the pavement to deteriorate rapidly. Rock debris removal is also an issue for SR 89. Caltrans removes rock debris on a daily basis.

Drainage improvements, curve improvements, turnouts, scenic pullouts, rock fall protection, and minor highway realignment will be considered as funding allows over the next twenty-year period. The Caltrans District 9 twenty-year safety roadside rest area master plan includes a rest area at the junction of U.S. 395 and SR 89.

Based on Highway Capacity Manual calculations, SR 89 is currently operating at a Level of Service (LOS) C, and is expected to continue at this level for the next twenty years (except where constrained by geometric features, speed restrictions, and advisory speeds, which may degrade the LOS at certain locations of the route). Capacity increasing projects are not being proposed for SR 89, as they are not warranted at this time and are not anticipated in the near future. Safety and operational improvements may be implemented but will have to take into account any possible scenic or environmental impacts.

Although SR 89 has no restrictions for motor homes or buses, large vehicles over 40 feet (12-meters) in length may have difficulty negotiating some curves and grades on this segment of SR 89 between U.S. 395 and SR 4. The route is signed indicating that Tractor Semis over 36-feet (11-meters) in length kingpin to the rear axle are not advised on this portion of SR 89, however they are not prohibited. Bicycles are allowed on all portions of SR 89. Apart from winter closure, the route is closed for one day in July to accommodate the Markleeville Death Ride; a 129-mile (208-kilometer) bike ride taking bicycle enthusiasts over Monitor Pass and back.

Driveway and road access requests for this segment of SR 89 need to be reviewed by Caltrans. Decisions will be based on safety and operational considerations including but not limited to; sight distance, grade characteristics, environmental considerations, and drainage requirements.

## ROUTE 89 CONCEPT SUMMARY

County	Segment	Post Miles	Post Kilometers	Current Facility	Concept Facility	Ultimate Facility	Current LOS	10-Yr LOS	20-Yr LOS	Concept LOS	Ultimate LOS	Page #
Mono	1	0/7.60	0/12.23	2 Lane Conventional	2 Lane Conventional	2 Lane Conventional	C	C	C	D	C	6



## SR 89 SEGMENT FACT SHEET

**Length in KM** 12.23    **Length (mi):** 7.60  
**PKm Back** 0.00    **Back PM** 0.00  
**PKm Ahead** 12.23    **Ahead PM** 7.60

**Segment:** 1 of 1

**Segment Location** Junction U.S. 395 / SR 89 to the Alpine County Line

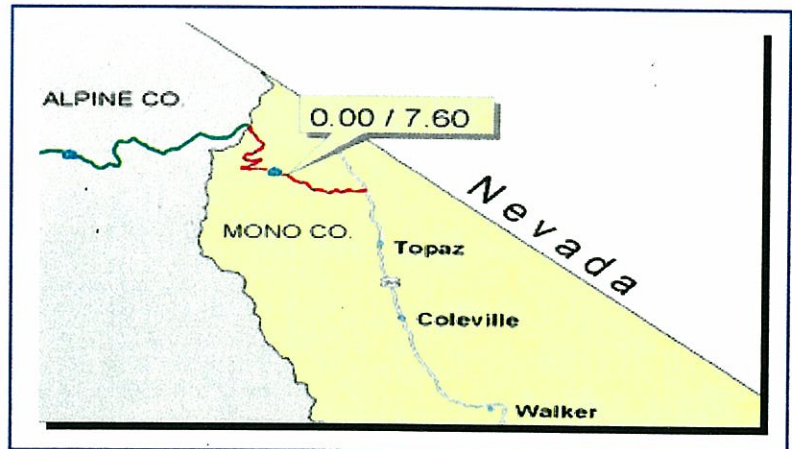
**Present Facility** 2 Lane Conventional

**Present LOS** C

**Concept Facility** 2 Lane Conventional

**Concept LOS** D

**Ultimate Facility** 2 Lane Conventional



### Segment Description

This segment is a 2-Lane conventional facility extending from US 395 to the Alpine County Line, a distance of 7.6 miles (12.23 kilometers). It is mountainous terrain with elevations ranging from 5,000 feet (1,524 meters) at the junction of US 395 to over 8,000 feet (2,530 meters) at the Alpine County Line. Steep grades greater than 6 percent are present on most of the segment length. There are no paved shoulders throughout this segment of highway. This portion of SR 89 serves mostly recreational and interregional traffic. SR 89 is officially designated a scenic highway from 3.2 miles (5.2 kilometers) north of the US 395 junction, to the Alpine County Line. Apart from winter closure, SR 89 is closed for 1 day in July to accommodate the Markleeville Death Ride; a 129 mile (208 kilometer) bike ride taking bicycle enthusiasts from Markleeville over Monitor Pass and back.

### Route Concept Improvements

The route improvement strategies for this segment are as follows:

- 1). Maintain the current 24-foot traveled way and add paved shoulders, turnouts, and scenic pullouts where shoulder drop-offs occur.
- 2). Evaluate and maintain the existing drainage network.
- 3). Curve improvements to improve travel way for large vehicles, minor Highway realignment.
- 4). The Caltrans District 9 twenty-year safety roadside rest area master plan includes a rest area at the junction of U.S. 395 and SR 89.

**Functional Classification:** Minor Arterial

#### Route Designations:

<b>National Hwy System</b>	No	<b>Nat'l Truck Network</b>	0	<b>0=Non NTN, 1=NTN STAA Trucks, 2=Terminal Access Rte.</b>
<b>Freeway/Expressway System</b>	Yes	<b>Scenic Highway</b>	1	<b>0=Non Scenic, 1=Officially Designated, 2=Eligible</b>
<b>STRAHNET</b>	No	<b>Life Line</b>	0	<b>0=Non Life Line, 1=Life Line</b>
<b>Regionally Significant</b>	No	<b>IRRS</b>	1	<b>0=Non IRRS, 1=IRRS, 2=IRRS Unconst, 3=Non IRRS, unconst.</b>

#### Programmed Projects

No capacity or operational improvements are programmed for this segment.

**County:** MONO

**Route**

89

**Segment:** 1 of 1

## SR 89 SEGMENT FACT SHEET

<b>RTPA/COG/MPO</b> Mono County LTC, Scott Burns, Executive Director PO Box 347 Mammoth Lakes, CA 93546 (760) 924-5450		<b>Air Quality Comments</b> This segment is unclassified/attainment for all air quality Federal standards. The following information is a brief overview only. Specific environmental information can be obtained from the Caltrans District 9 Environmental Office.																																	
<b>General Plan</b> Mono County General Plan, 1993 update	<b>General Plan Standards</b> LOS C	<b>Air Basin</b> Great Basin Valleys	<b>Water Quality Comments</b> District 9 will coordinate and consult with local government agencies concerning Storm Water issues																																
		<b>Air Quality District</b> Great Basin Unified Air Pollution Control District, 157 Short St. Bishop, CA 93514 (760) 872-8211	<b>Water Quality District</b> Lahontan Regional Water Quality Control Board 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150 (530) 542-5400																																
<b>Land Use</b> Land use for this segment is recreational, ranching, and forestry traffic. The roadway along this segment provides access to hiking, biking, camping, and fishing. Land use owners are the USDA Forest Service, U.S. Bureau of Land Management, and a few private parcels.		<b>Transit Service/ Modal Options</b> Bicycle travel is allowed. Fixed bus service is not available. Although no restrictions for buses exist, vehicles over 40 feet (12 meters) in length may have difficulty negotiating some curves on this segment.																																	
<b>Highway Log Right of Way Information</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Average Median Width (ft)</td> <td style="width: 10%;">0</td> <td style="width: 30%;">Avg Median Width (m)</td> <td style="width: 10%;">0</td> </tr> <tr> <td>Average Shoulder Width (ft)</td> <td>0</td> <td>Avg Shoulder Width (m)</td> <td>0</td> </tr> <tr> <td>Average Lane Width (ft)</td> <td>12</td> <td>Avg Lane Width (m)</td> <td>3.6</td> </tr> </table>		Average Median Width (ft)	0	Avg Median Width (m)	0	Average Shoulder Width (ft)	0	Avg Shoulder Width (m)	0	Average Lane Width (ft)	12	Avg Lane Width (m)	3.6	<b>Right of Way Comments</b> District 9 records indicate no record of Right of Way or Special Use Permit. Right of Way is by prescriptive right only. There is no access control agreement for this segment.																					
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<table style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: center;">Calculation Factors</th> </tr> <tr> <td style="width: 20%;">F+I Accident Rate</td> <td style="width: 10%;">0.99</td> <td style="width: 20%;">% Traffic Growth (0-10 yrs)</td> <td style="width: 10%;">0.5</td> </tr> <tr> <td>F+I Statewide Avg Rate</td> <td>1.29</td> <td>% Traffic Growth (10-20 yrs)</td> <td>0.5</td> </tr> <tr> <td>Total Accident Rate</td> <td>1.65</td> <td>% of Trucks</td> <td>3</td> </tr> <tr> <td>Total Statewide Avg Rate</td> <td>2.57</td> <td>% of RV's</td> <td>7</td> </tr> <tr> <td></td> <td></td> <td>% of Buses</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>Directional Split</td> <td>53/47</td> </tr> <tr> <td></td> <td></td> <td>Terrain</td> <td>Mountainous</td> </tr> </table>		Calculation Factors				F+I Accident Rate	0.99	% Traffic Growth (0-10 yrs)	0.5	F+I Statewide Avg Rate	1.29	% Traffic Growth (10-20 yrs)	0.5	Total Accident Rate	1.65	% of Trucks	3	Total Statewide Avg Rate	2.57	% of RV's	7			% of Buses	1			Directional Split	53/47			Terrain	Mountainous	<b>Environmental Concerns</b> The scenic mountainous area is the main environmental concern for this segment.	
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<b>Bibliography</b> Mono County Regional Transportation Plan, 1996 (rev. 2001) Mono County General Plan, 1993																																			



# GLOSSARY

<b>Concept Facility</b>	Highway facility type and characteristics considered viable with or without improvement within the 20-year planning period given financial, environmental, planning and engineering factors.
<b>Concept LOS</b>	Highest and best Level of Service that can be achieved in the 20-year planning period based on the concept facility.
<b>Directional split</b>	The percentage of traffic in the peak direction during the peak hour.
<b>Functional Classification</b>	Guided by Federal legislation, refers to a process by which streets and highways are grouped into classes or systems according to the character of the service that is provided (i.e. Principal Arterial, Minor Arterial Roads, Collector Roads and Local Roads).
<b>Interregional Road System</b>	Statewide network of legislatively identified interregional routes, outside urbanized areas, that provides access to, and links between, the state's economic centers, major recreational areas, urban and rural regions.
<b>Level of Service (LOS)</b>	A qualitative rating of the effectiveness of a transportation system in serving travel. Letters A (best) through F (worst).
<b>National Highway System</b>	Federal-designated system of major highways in each state, including all numbered interstate highways.
<b>Present Facility</b>	Highway type and general characteristics at the time of this study.
<b>Present LOS</b>	Existing Level of Service.
<b>Programmed Projects</b>	Capacity-enhancing, safety and/or operational improvement projects programmed through STIP or SHOPP.
<b>Route Designations</b>	Identifies whether or not the subject segment of a route is designated as being part of the National Highway System (NHS); Interregional Highway System (IRRS); California Freeway/Expressway (F & E) Eligible; Scenic Highway; National Truck Network (NTN); Terminal Access Route for the National Truck Network; Strategic Highway Network (STRAHNET); and, Highways of Regional Significance.
<b>Trans Sierra Corridor Study Advisory Committee</b>	Committee representing the Local Transportation Commissions of Alpine, Mono and Tuolumne Counties; The Inyo, Toiyabe, and Stanislaus National Forests, Yosemite National Park, and Caltrans Districts 6, 9, and 10. The Committee is focused on examining methods and making recommendations for improving access over the Sierra Nevada with a particular focus on minimizing highway closures and improving roadways.

## ACRONYMS

<b>AADT</b>	Average Annual Daily Traffic
<b>ADT</b>	Average Daily Traffic
<b>BLM</b>	Bureau of Land Management
<b>Caltrans</b>	California Department of Transportation
<b>IRRS</b>	Interregional Road System
<b>KM</b>	Kilometer
<b>LOS</b>	Level of Service
<b>MNO</b>	Mono
<b>NHS</b>	National Highway System
<b>NTN</b>	National Truck Network
<b>PKM</b>	Post Kilometer
<b>PM</b>	Post Mile
<b>RV</b>	Recreational Vehicle
<b>SHOPP</b>	State Highway Operation and Protection Program
<b>STAA</b>	Surface Transportation Assistance Act
<b>STIP</b>	State Transportation Improvement Program
<b>STRAHNET</b>	Strategic Highway Network
<b>TCR</b>	Transportation Concept Report
<b>USFS</b>	US Forest Service
<b>V/C</b>	Volume to Capacity

## REFERENCES

1996 Mono County Regional Transportation Plan (revised 2001)  
1986 Caltrans Route Segment Report  
1993 Mono County General Plan  
2000 Caltrans Highway Capacity Manual/Highway Capacity Software  
District 9 Post Mile Log  
TASAS Table B Accident Data



## Profile of State Route 89 In Mono County

